

# SEQUENCE LISTING

<110> Rong, Sing  
 Cai, Jenny Hon

<120> METHODS AND COMPOSITIONS FOR DIAGNOSING AND TREATING COMPANION  
 ANIMAL CANCER

<130> 15526 (PC23188A)

<140> 60/422,342  
 <141> 2002-10-30

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<170> PatentIn version 3.2

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Val Leu Leu Gln Ser Leu Cys Val Ala Val Thr Tyr Met Tyr Phe Thr  
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Arg Glu Leu Lys Gln Met Gln Asp Lys Tyr Ser Gln Ser Gly Ile Ala  
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Cys Phe Leu Lys Glu Asp Asp Ile Pro Trp Asp Pro Ser Asp Glu Glu  
55 60 65

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Ser Met Asn Asn Pro Cys Trp Gln Val Lys Trp Gln Leu Arg Gln Phe  
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35 40 45  
Ser Gly Ile Ala Cys Phe Leu Lys Glu Asp Asp Ile Pro Trp Asp Pro  
50 55 60  
Ser Asp Glu Glu Ser Met Asn Asn Pro Cys Trp Gln Val Lys Trp Gln  
65 70 75 80  
Leu Arg Gln Phe Val Arg Lys Met Ile Leu Lys Thr Tyr Glu Glu Thr  
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Ile Pro Thr Ala Pro Glu Lys Gln Leu Asn Ile Pro Tyr Val Val Ser  
100 105 110  
Asp Arg Gly Ser Gln Arg Val Ala Ala His Ile Thr Gly Thr Ser Arg  
115 120 125  
Arg Ser Met Phe Pro Ile Pro Ser Ser Lys Asn Asp Lys Ala Leu Gly  
130 135 140  
His Lys Ile Asn Ser Trp Asp Ser Thr Arg Lys Gly His Ser Phe Leu  
145 150 155 160  
Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Gln Arg Gly  
165 170 175  
Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Pro Glu  
180 185 190  
Glu Ile Pro Thr Gly Gln Asn Arg Lys Arg Asn Lys Gln Met Val Gln  
195 200 205  
Tyr Ile Tyr Lys His Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys  
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Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ser Glu Tyr Gly Leu Tyr  
225 230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile  
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gtg ctg ctg cag tcc ctg tgc gtg gcc gtg act tac atg tac ttc acc 211  
Val Leu Leu Gln Ser Leu Cys Val Ala Val Thr Tyr Met Tyr Phe Thr  
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Ser Glu Leu Arg Gln Met Gln Asp Lys Tyr Ser Gln Ser Gly Ile Ala  
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Cys Phe Leu Lys Glu Asp Asp Ile Pro Trp Asp Pro Asn Asp Glu Glu  
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agt atg aac acc ccg tgc tgg caa gtg aaa tgg cag ctg cgt cag ttt 355  
Ser Met Asn Thr Pro Cys Trp Gln Val Lys Trp Gln Leu Arg Gln Phe  
70 75 80

gtt aga aag att ttg aga acc tat gag gaa acc att cct aca gtt cca 403  
Val Arg Lys Ile Leu Arg Thr Tyr Glu Glu Thr Ile Pro Thr Val Pro  
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gaa aag cag cta aat att cct tac cta gta aga gaa aga ggt cct cag 451  
Glu Lys Gln Leu Asn Ile Pro Tyr Leu Val Arg Glu Arg Gly Pro Gln  
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aga gta gca gct cac ata act gga acc agt cgg aga aga agc aca ttc 499



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Ser Trp Glu Ser Ser Arg Lys Gly His Ser Phe Leu Asn Asn Leu His	
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Leu Arg Asn Gly Glu Leu Val Ile His Gln Arg Gly Phe Tyr Tyr Ile	
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Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Pro Glu Glu Ile Pro Thr	
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Gly Gln Asn Arg Lys Arg Asn Lys Gln Met Val Gln Tyr Ile Tyr Lys	
200 205 210	
cac acg agt tat ccg gac cct ata ctg ctg atg aaa agt gct aga aat	787
His Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys Ser Ala Arg Asn	
215 220 225	
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Ser Cys Trp Ser Lys Asp Ser Glu Tyr Gly Leu Tyr Ser Ile Tyr Gln	
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Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile Phe Val Ser Val	
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Ser Asn Glu Gln Leu Ile Asp Met Asp Gln Glu Ala Ser Phe Phe Gly	
265 270 275	
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Ala Phe Leu Ile Gly	
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35 40 45  
Ser Gly Ile Ala Cys Phe Leu Lys Glu Asp Asp Ile Pro Trp Asp Pro  
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Asn Asp Glu Glu Ser Met Asn Thr Pro Cys Trp Gln Val Lys Trp Gln  
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Leu Arg Gln Phe Val Arg Lys Ile Leu Arg Thr Tyr Glu Glu Thr Ile  
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Pro Thr Val Pro Glu Lys Gln Leu Asn Ile Pro Tyr Leu Val Arg Glu  
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Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly Thr Ser Arg Arg  
115 120 125  
Arg Ser Thr Phe Pro Val Pro Ser Ser Lys Asn Glu Lys Ala Leu Gly  
130 135 140  
Gln Lys Ile Asn Ser Trp Glu Ser Ser Arg Lys Gly His Ser Phe Leu  
145 150 155 160  
Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His Gln Arg Gly  
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Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln Glu Pro Glu  
180 185 190  
Glu Ile Pro Thr Gly Gln Asn Arg Lys Arg Asn Lys Gln Met Val Gln  
195 200 205  
Tyr Ile Tyr Lys His Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys  
210 215 220  
Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ser Glu Tyr Gly Leu Tyr  
225 230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile  
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Ala Leu Gly His Lys Ile Asn Ser Trp Asp Ser Thr Arg Lys Gly His  
35 40 45

Ser Phe Leu Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His  
50 55 60

Gln Arg Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln  
65 70 75 80

Glu Pro Glu Glu Ile Pro Thr Gly Gln Asn Arg Lys Arg Asn Lys Gln  
85 90 95

Met Val Gln Tyr Ile Tyr Lys His Thr Ser Tyr Pro Asp Pro Ile Leu  
100 105 110

Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ser Glu Tyr  
115 120 125

Gly Leu Tyr Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn  
130 135 140

Asp Arg Ile Phe Val Ser Val Ser Asn Glu Gln Leu Ile Asp Met Asp  
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165 170

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Thr Ser Arg Arg Ser Met Phe Pro Ile Pro Ser Ser Lys Asn Asp Lys  
 20 25 30

Ala Leu Gly His Lys Ile Asn Ser Trp Asp Ser Thr Arg Lys Gly His  
 35 40 45

Ser Phe Leu Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile His  
 50 55 60

Gln Arg Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe Gln  
 65 70 75 80

Glu Pro Glu Glu Ile Pro Thr Gly Gln Asn Arg Lys Arg Asn Lys Gln  
 85 90 95

Met Val Gln Tyr Ile Tyr Lys His Thr Ser Tyr Pro Asp Pro Ile Leu  
 100 105 110

Leu Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ser Glu Tyr  
 115 120 125

Gly Leu Tyr Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn  
 130 135 140

Asp Arg Ile Phe Val Ser Val Ser Asn Glu Gln Leu Ile Asp Met Asp  
 145 150 155 160

Gln Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Gly Tyr Ile Arg Cys  
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Thr Arg Glu Lys Thr Arg Ala Ile Arg Glu Leu Gly Lys Pro Ile Pro  
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Asn Pro Leu Leu Gly Leu Asp Ser Ser His His His His His Gln  
 195 200 205

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Lys Ala Leu Gly Gln Lys Ile Asn Ser Trp Glu Ser Ser Arg Lys Gly  
 35 40 45

His Ser Phe Leu Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile  
 50 55 60

His Gln Arg Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe  
 65 70 75 80

Gln Glu Pro Glu Glu Thr Glu Gln Asn Arg Lys Arg Asn Lys Gln Met  
 85 90 95

Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu  
 100 105 110

Met Lys Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ser Glu Tyr Gly  
 115 120 125

Leu Tyr Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp  
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Arg Ile Phe Val Ser Val Ser Asn Glu Gln Leu Ile Asp Met Asp Gln  
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Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Gly  
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 35 40 45

His Ser Phe Leu Asn Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile  
 50 55 60

His Gln Arg Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe  
 65 70 75 80

Gln Glu Pro Glu Glu Thr Glu Gln Asn Arg Lys Arg Asn Lys Gln Met  
 85 90 95

Val Gln Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu  
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Leu Tyr Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp  
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Arg Ile Phe Val Ser Val Ser Asn Glu Gln Leu Ile Asp Met Asp Gln  
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Glu Ala Ser Phe Phe Gly Ala Phe Leu Ile Gly Tyr Thr Arg Gly Arg  
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